



STATE OF MARYLAND

# DHMH

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**July 15, 2011**

## **Public Health & Emergency Preparedness Bulletin: # 2011:27** **Reporting for the week ending 07/9/11 (MMWR Week #27)**

### **CURRENT HOMELAND SECURITY THREAT LEVELS**

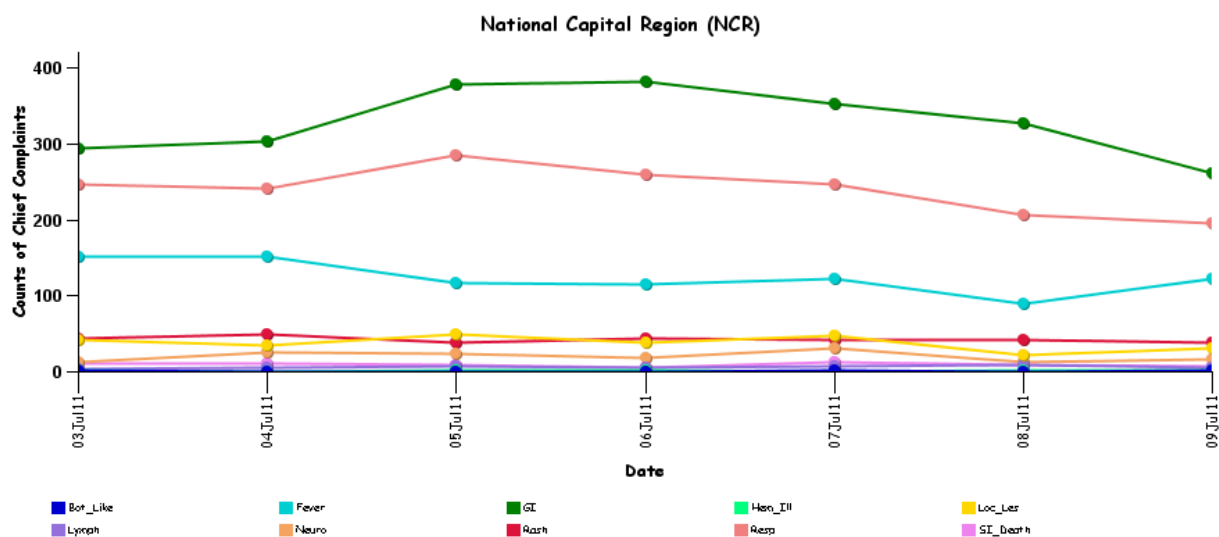
**National:** No Active Alerts  
**Maryland:** Level One (MEMA status)

### **SYNDROMIC SURVEILLANCE REPORTS**

#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

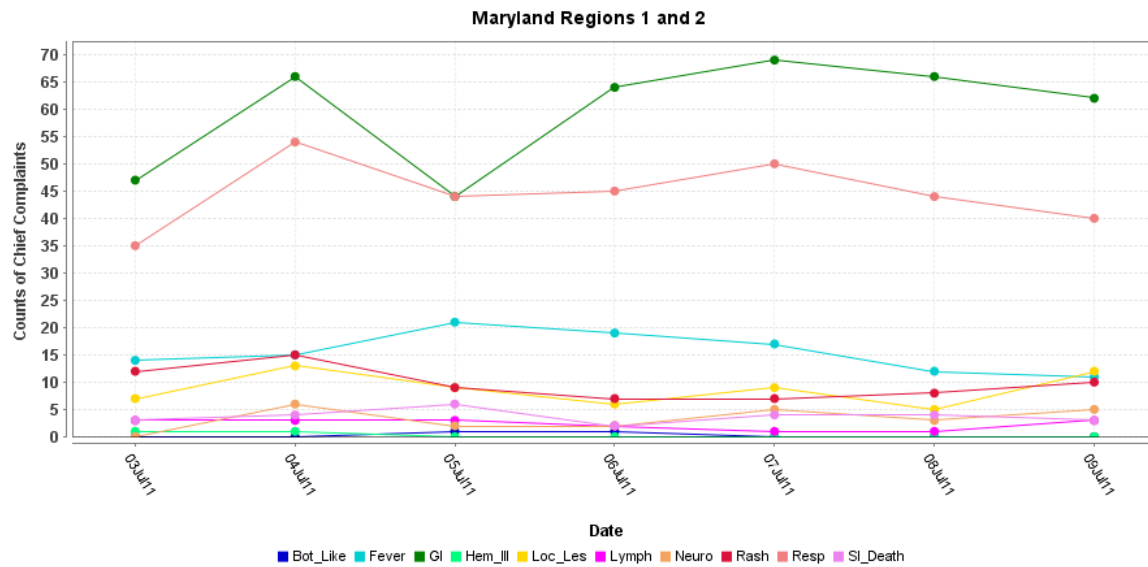
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

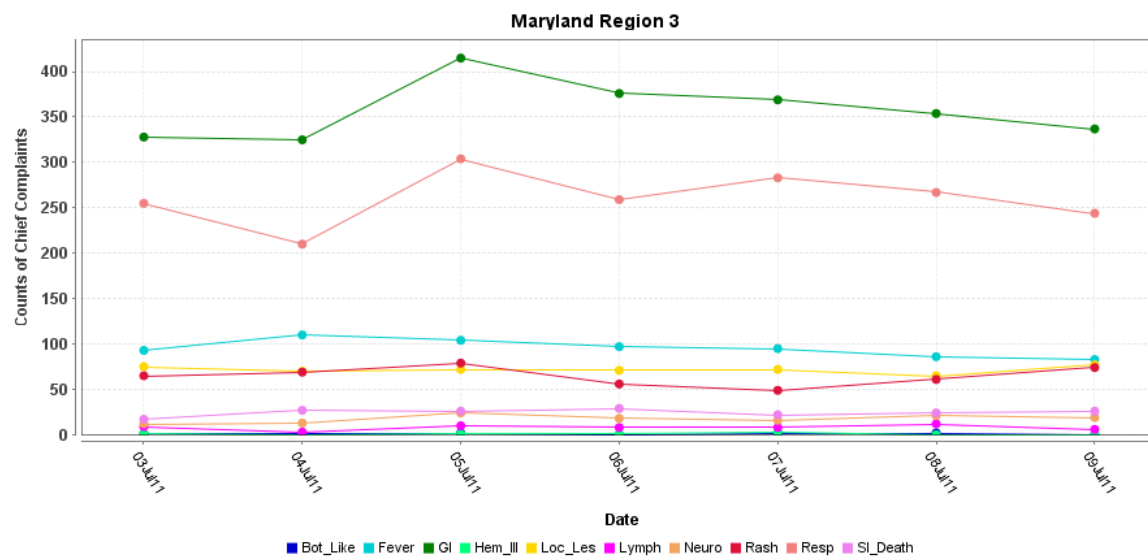


\*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

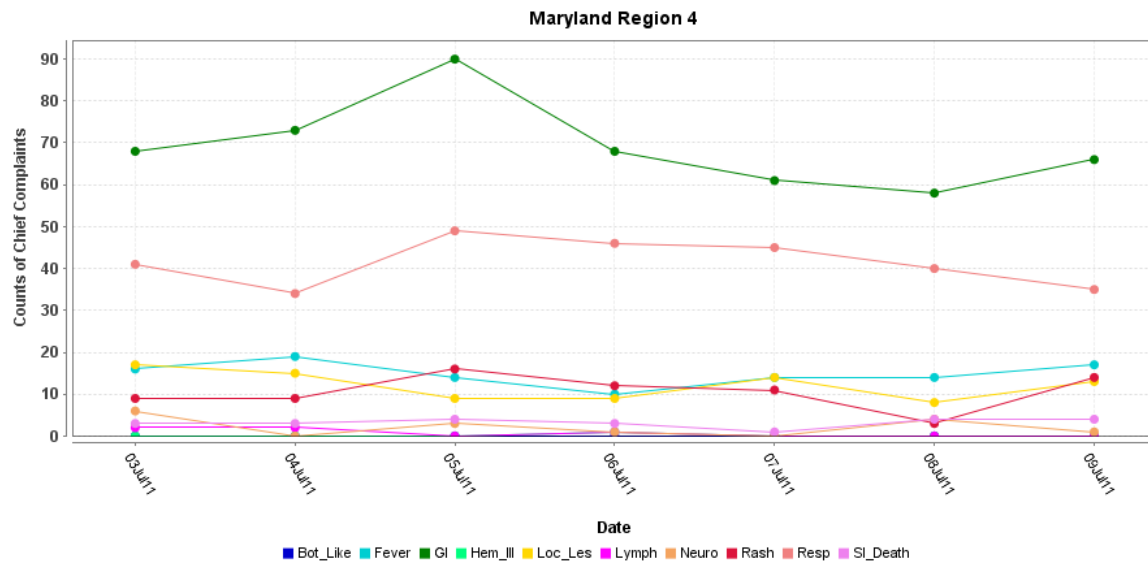
## MARYLAND ESSENCE:



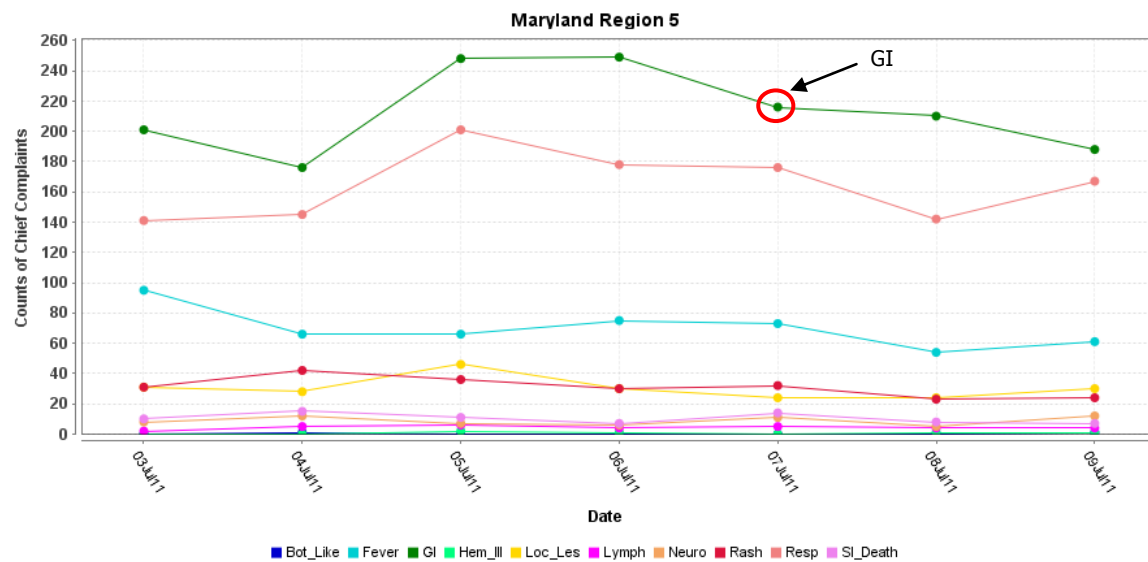
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

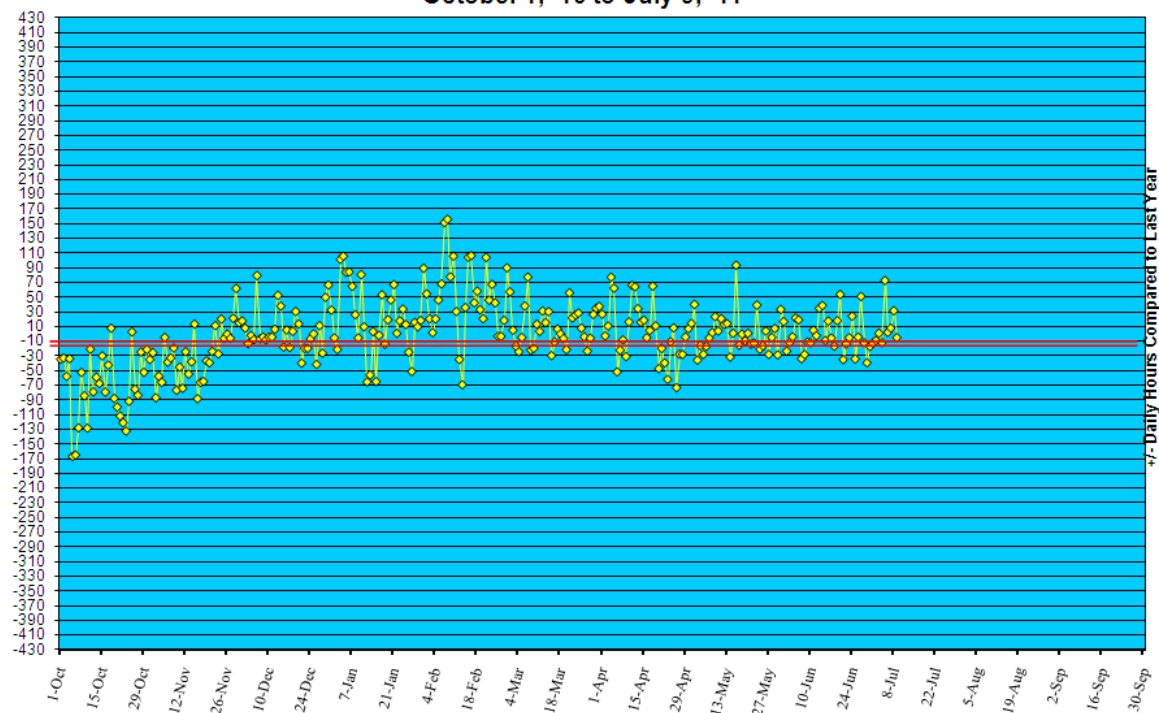


\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

## REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/10.

### Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to July 9, '11



## REVIEW OF MORTALITY REPORTS

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## MARYLAND TOXIDROMIC SURVEILLANCE

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2011 did not identify any cases of possible public health threats.

## REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

### COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

#### Meningitis:

New cases (July 3 – July 9, 2011):  
Prior week (June 26 – July 2, 2011):  
Week#27, 2010 (July 4 – July 10, 2010):

#### Aseptic

9  
15  
8

#### Meningococcal

0  
0  
0

**2 outbreaks were reported to DHMH during MMWR Week 27 (July 3– July 9, 2011).**

### **1 Rash illness outbreak**

1 outbreak of RASH in a Nursing Home

### **1 Other outbreak**

1 outbreak of BACTEREMIA in a Hospital

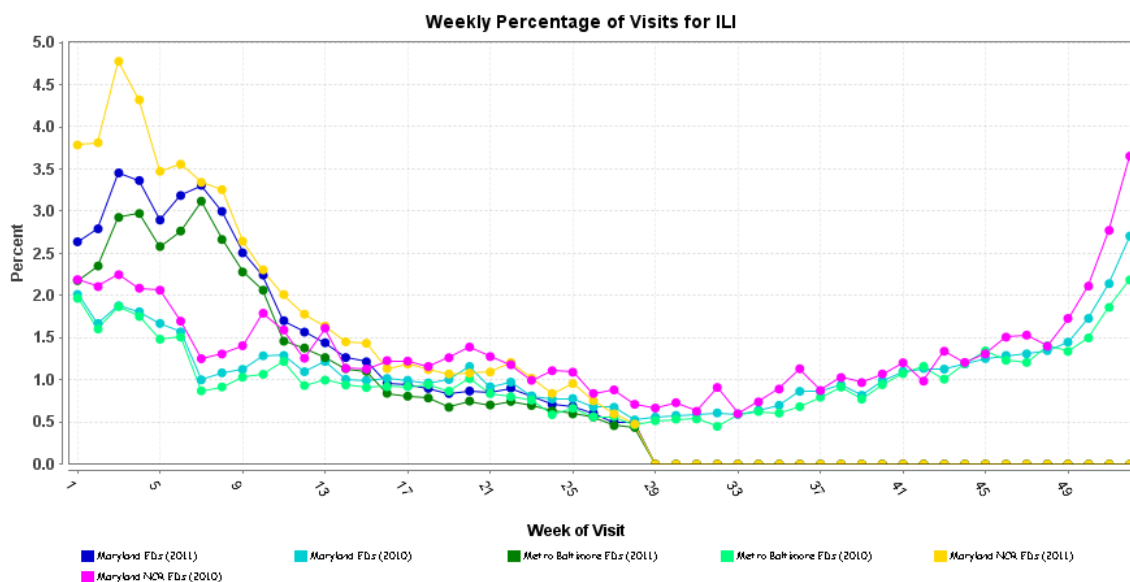
## **MARYLAND SEASONAL FLU STATUS**

Seasonal Influenza reporting occurs October through May.

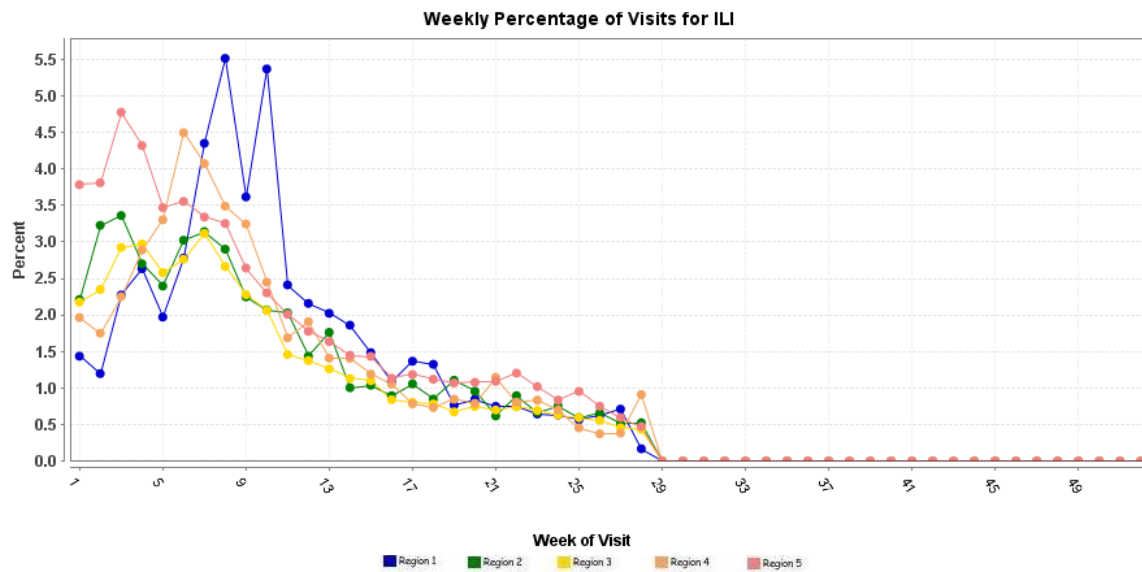
## **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



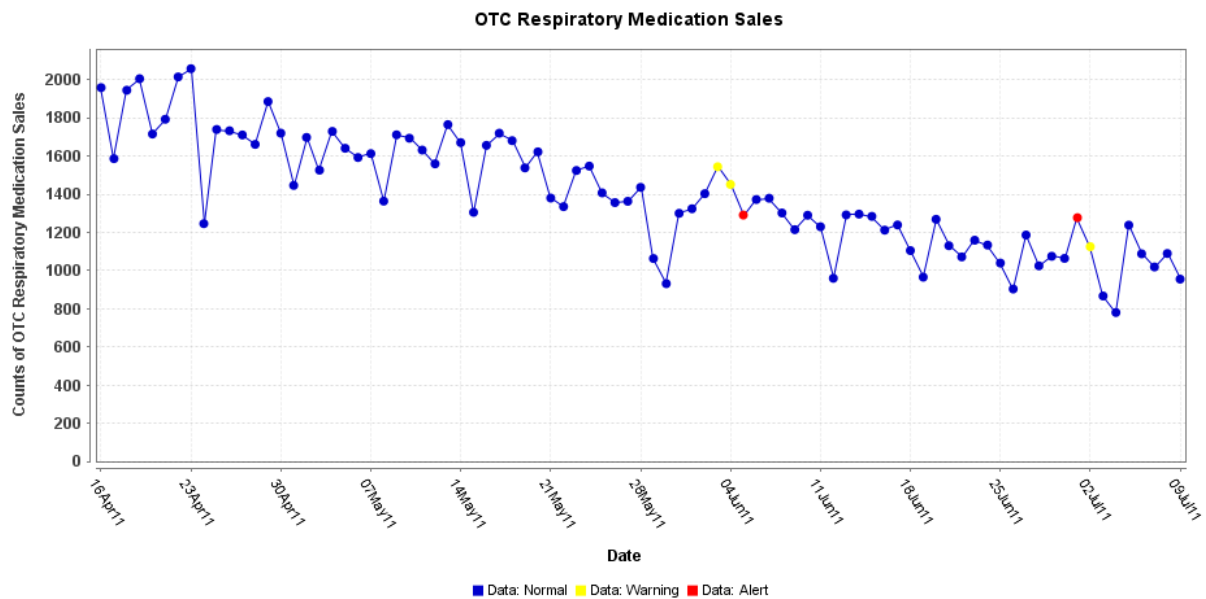
\* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



\*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

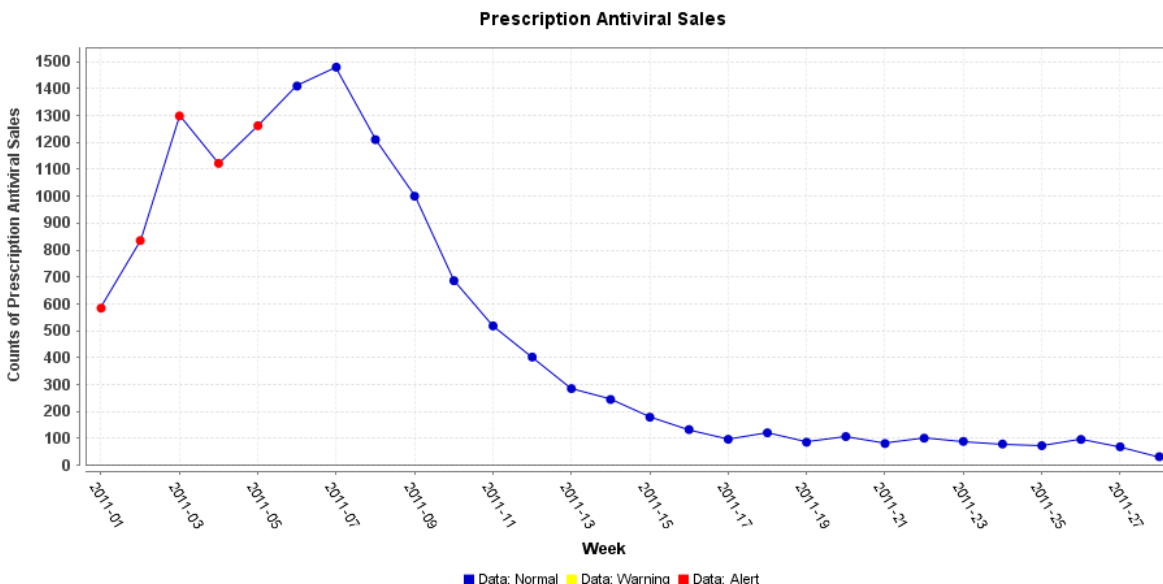
#### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



## **PRESCRIPTION ANTIVIRAL SALES:**

Graph shows the weekly number of prescription antiviral sales in Maryland.



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of June 22, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 562, of which 329 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

## **NATIONAL DISEASE REPORTS**

**ANTHRAX (GEORGIA):** 28 Jun 2011, Two people have been treated in hospital in Georgia with signs of anthrax. The hospital has announced that their condition is serious despite the fact that they have the skin form of the disease. These 2 cases are from 2 different places, and both have had contact with sick animals. In particular, they participated in slaughtering apparently sick animals. In both cases, it was necessary to perform surgical procedures. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**CHOLERA (NEW YORK):** 16 Jun 2011, The patient has fully recovered from his illness with resolution of his acute renal failure. No other cases have occurred as far as I know. The organism was confirmed to be *Vibrio cholerae* by both the New York City and Centers for Disease Control and Prevention labs. It was non-O1, non-O139 and also did not agglutinate using the other O antigen testing available at CDC, O141 and O75. In addition, the organism was tested by PCR for the presence of cholera toxin gene (ctxA) and was determined to be negative for this gene, so it was non-toxigenic for the cholera toxin. This patient clinically had cholera, losing more than 10 per cent of his body weight. Overall, non-O1, non-O139 strains of *V. cholerae* tend to (but, as in this case, not always) cause milder gastrointestinal illness and also can have bacteremic, non-diarrhea presentations. In almost all cases, non-O1, non-O139 *V. cholerae* isolates do not possess the genes for either cholera toxin or the toxin-coregulated pilus (TCP). Yet, some isolates can cause substantial diarrhea. The type III secretion system (TTSS) is a mechanism for Gram negative bacilli to introduce effector proteins into host cell cytoplasm. Recently, it has been reported that a functional TTSS is required for at least some non-O1, non-O139 isolates to induce diarrhea in an animal model associated with small bowel damage and production of

proinflammatory cytokines. In addition, TTSS contributes to virulence even in the presence of cholera toxin and TCP. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**E. COLI (IDAHO):** 1 Jul 2011, Idaho Panhandle health officials confirmed this morning 5 kitchen workers at Camp Lutherhaven have been sickened by *Escherichia coli*. 3 more staff are ill, but lab tests haven't linked it to the bacterial infection. No one has been hospitalized and the ill workers have been excluded from the kitchen. None of the 300-plus campers has reported getting sick during the 1st 2 weeks of summer camp along the shores of Lake Coeur d'Alene. A review of the camp by health and safety investigators determined that the camp's food handling procedures were more than adequate. They suspect that the employees may have contracted the infection in their living quarters. The strain at Camp Lutherhaven is *E. coli* 026. It is different from the deadly strain that spread across Europe last month [June 2011] sickening several thousand people and killing at least 47. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

## **INTERNATIONAL DISEASE REPORTS**

**GNATHOSTOMIASIS (AUSTRALIA):** 5 Jul 2011, A Victorian couple endured a health nightmare after tiny worms with teeth began eating through their bodies. It is the 1st time humans have been infected by the parasite in Australia. It is believed the couple became ill after eating a fish they caught on a WA [Western Australia] camping holiday. Alfred hospital infectious disease physician Andrew Fuller said that when the couple ate the fish, believed to be a black bream, they also ingested the gnathostomiasis larvae. "The worms are 1-3 mm long and have got these sharp little teeth and they can go anywhere they like in the body," Dr Fuller said. The worm works its way around the human body until it dies or is killed by the immune system. "They move under the skin and cause itchy lumps that can make you feel sick -- and it can be very hard to diagnose." The infected couple suffered muscle pain, fevers, vomiting, and their skin began to look like orange peel. They were given antibiotics and have recovered. The worms can stay in a human for 15 years, leaving people chronically ill. They can make their way into the brain, other organs, and the spinal cord. "They eat your tissues," Dr Fuller said. He had treated 28 people with the condition, who all contracted it overseas. Neither of the latest patients had been overseas. Dr Fuller sent samples of their blood to Bangkok. The fish was caught in the Calder River, north of Derby, and the incident was reported in the Australian Medical Journal. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**LEPTOSPIROSIS (INDIA):** 7 Jul 2011, The 1st ever case of leptospirosis has been reported from the [Belgaum] district. According to sources in the district surveillance department, a patient from Mamadapur village in Chikkodi taluk [a town in the Belgaum district], who is undergoing treatment in Kolhapur district government hospital in Maharashtra [a neighboring Indian state to the north], has tested positive for the disease. The number of patients with rat fever [leptospirosis] in the state [Kerala] is on the rise. There are as many as 11 with rat fever according to the update on 5 Jul [2011]. The health services director has warned against washing and bathing in murky waters and has instructed the use of gloves and socks for animal caretakers and agricultural workers to prevent the spread of rat fever. They have also been directed to take a weekly preventive medicine [doxycycline], which is available at the primary health centers, free of cost. The symptoms of rat fever are high fever, headache, body ache, red eyes, and muscle cramps. Pregnant women, affected with fever, should consult a doctor at the earliest [opportunity] and get the appropriate treatment. Those with kidney trouble, liver functioning problems, and diabetes have also been advised utmost caution. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)\*Non-suspect case

**E. COLI (FRANCE):** 6 Jul 2011, On Wed 6 Jul 2011, the Regional Health Agency (ARS) said 4 new patients, including a baby in a coma, who have the same symptoms as those hospitalized in recent weeks after an *Escherichia coli* infection, were admitted between Monday [4 Jul 2011] and Tuesday [5 Jul 2011] at the University Hospital in Lille. The baby, aged 20 to 30 months, was admitted to the ICU of the hospital on a ventilator and dialysis, said the ARS Nord-Pas-de-Calais. The other 3 cases, including 2 belonging to the same family, were also reported on 4 and 5 Jul 2011, according to the ARS, indicating that the food and microbiological investigations are under way to determine whether this is an infection by the bacterium *E. coli*. Previously, between 14 Jun and 1 Jul 2011, 9 cases of hemolytic uremic syndrome (HUS), in children aged 12 months to 8 years who had consumed frozen hamburgers in the days before the symptoms appeared have been reported by the Lille University Hospital, according to ARS. Among the initial cases, a child aged 2 years and a native of Oise [department] is still in a coma, mechanical ventilation, according to ARS. Of the cases hospitalized with bloody diarrhea and renal failure 8 had the same *E. coli* strain 0157, different from the bacterial strain O104:H4 which has caused 50 deaths, including 48 in Germany. 7 of these patients consumed ground beef of the brand Steaks Country, distributed by Lidl stores. The 1st death from *E. coli* in France was reported on Friday night [1 Jul 2011]: in Bordeaux, a 78 year old woman died, but she was infected with neither the O157 nor the O104 strains but a different strain of *E. coli*, O145. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**JAPANESE ENCEPHALITIS (INDIA):** 7 Jul 2011, The number of cases of Japanese encephalitis [JE] in the 7 high-risk districts of Uttar Pradesh has shot up with the arrival of the monsoon, despite the extensive immunization undertaken by the government to control it. The state has already seen 79 more cases and 10 more deaths due to encephalitis till 5 Jul [2011], as compared to last year [2010]. According to reports received by the Medical and Health Department, last year [2010] the state recorded 371 cases and 67 deaths from acute encephalitis syndrome (AES), while this year [2011] the number of cases has already reached 450 and deaths 77. Similar is the case with JE. Until 5 Jul 2010, the state had seen merely 5 cases and one death from JE, but this time the number of JE cases is already 20, with 3 deaths. The worst affected districts are Gorakhpur with 111 cases and 21 deaths of AES so far, closely followed by Deoria (109 cases and 15 deaths), and Kushinagar (103 cases and 22 deaths). JE cases have also been reported from these 3 districts along with Basti, Siddharthanagar, Sant Kabir Nagar, and Maharajganj. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmf.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmf.maryland.gov/flusurvey>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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